

## 1996 SURVEY, NURSERY AND FIELD INSPECTION SUMMARY

**APPLE ERMINE MOTH (AEM)** (*Yponomeuta malinellus* Zeller) - This detection survey was conducted under a grant from the USDA. All of the commercial apple growing areas of the state were surveyed, as well as a limited number of abandoned and backyard apple trees in the remainder of the state. Trap sites were selected at each inspector's discretion based upon risk, accessibility, and presence of suitable host material. There were approximately 51 traps placed in 10 counties in Northern Idaho adjacent to areas in Washington where AEM is known to occur. Placement ranged from one to fourteen traps in a given county. No moths were detected.

**APPLE MAGGOT (AM)** (*Rhagoletis pomonella* (Walsh)) - No positive trap catches were reported this year for the first time in several years. We have a sentinel site on native hawthorn in Boise County which is far removed from any commercial fruit production that had routinely caught a dozen or so AM every year for the past several years. This year 85 traps were placed in seven counties in and around the commercial fruit production areas of each county.

**BEET NECROTIC YELLOW VIEN VIRUS** (*Rhizomania*) - Rhizomania infested fields were found for the first time in Ada and Washington counties (One field each). A total of 17 new fields were found during surveys this past summer (including those in Washington and Ada counties). Newly found infested fields in counties already known to be infested are as follows: Bingham - 3, Canyon - 1, Cassia - 2, Jerome - 1, Minidoka - 3, Power - 4, Twin Falls - 1.

**CEREAL LEAF BEETLE (CLB)** (*Oulema melanopus*) - Active infestations of the cereal leaf beetle were detected for the first time in 1992, in Franklin county south of Preston, in southeastern Idaho. Surveys in 1996 of 188 wheat, barley, and oat fields and a few roadside grass surveys in 36 counties in the state were carried out. A minimum of four to five fields per county were surveyed. Detections were made in six counties for the first time this year (Ada, Caribou, Jerome, Minidoka, Owyhee, and Twin Falls). The infestations in the new counties are very isolated and population levels are very low. No parasite releases were made this year. [A map showing Idaho counties positive for CLB is attached.](#)

**EUROPEAN PINE SHOOT MOTH (EPSM)** (*Rhyacionia buoliana* (Denis & Schifferrmüller)) - Limited infestations are known to exist in Ada, Canyon, Elmore, Gem, Kootenai, Latah and Nez Perce counties as determined by surveys performed over the past few years. In 1996, detection surveys were carried out in all areas of the state. Trap sites were selected at each inspector's discretion based upon risk, accessibility, and presence of suitable host material. There were 137 traps placed in 40 counties. New positive sites were found in Owyhee, Gooding, Lincoln, and Twin Falls counties. This survey is performed in support of the state's quarantine against this pest to track its movement across the state for compliance with California, Oregon and Canadian quarantines.

**GYPSY MOTH (GM)** (*Lymantria dispar*) Detection Trapping - In 1996 the cooperating agencies in the Idaho gypsy moth detection program placed 4,290 detection traps throughout the state. Traps were placed throughout the state in cities and towns and the surrounding urban areas and rural communities in accordance with a predetermined rotation schedule. Campgrounds, tourist attractions, and other high risk locations were also trapped. No gypsy moths were caught in detection traps in 1996.

Delimitation Trapping - In 1996 delimitation trapping was done at three sites--Coeur d'Alene, Post Falls, and Pocatello. In the city of Coeur d'Alene, 96 traps were placed in the area where two gypsy moths were caught in 1994. Twenty-one delimitation traps were placed in Post Falls surrounding the site where a single gypsy moth was caught in a detection trap in 1995. The delimitation grid at Post Falls will be trapped again next year. There will be no delimitation trapping in Coeur d'Alene or Pocatello where two successive years of intensive trapping have produced no further catches.

*The gypsy moth program is run by the Idaho Department of Lands, for more detailed information, please contact Dr. R. Ladd Livingston or Mr. Len Mason at P.O. Box 670, 701 River Avenue, Coeur d'Alene, Idaho 83816, Phone (208) 769-1524.*

**JAPANESE BEETLE** (*Popillia japonica Newman*) - Traps were placed at many of the larger nurseries across the state that were known to handle large quantities of container and/or balled and burlap nursery stock, as well as recently landscaped properties, such as commercial office parks, golf courses, and apartment complexes. There were 195 traps placed in 183 sites in 41 counties statewide. Traps were placed the last week of June and picked up during the last week of September or first week of October. All traps were checked every two weeks. Trapping was carried out on a site selection basis by Plant Industry inspectors with emphasis being placed on nurseries, golf courses, office's parks, landfills and apartment complexes. No positive detections were made during 1996.

**KARNAL BUNT (KB)** (*Tilletia indica*) - This report includes 82 data summary records which have been entered into the National Agricultural Pest Information System (NAPIS). There were 406 grain, 71 - 1995 seed samples, and 12 - 1996 seed samples processed and entered into the NAPIS system. All of the grain samples were collected and analyzed according to USDA national survey standards. The seed samples were all obtained from the Idaho State Seed Laboratory. In Adams, Boise, and Shoshone counties no wheat could be found to be sampled. The state of Utah collected 28 samples from six counties in Idaho at Utah elevators. The lab analyses from these samples were forwarded to the Idaho State Department of Agriculture summarized and in the entries listed above.

**LESSER APPLEWORM (LAW)** (*Cydia prunivora*) - We had been doing some Oriental Fruit Moth (OFM) surveys in Boundary County (as mentioned above) this past summer to support some Canadian export activities by the nursery industry in that area. We began catching large numbers of a particular moth in the OFM traps that were not OFM. The numbers of moths being caught was large enough to preclude it being an accidental encounter with the trap. Samples were sent to the Yakima Agricultural Research Lab in Wapato, Washington, and determined to be Lesser Appleworm. This is the first detection of this insect in the State of Idaho, as far as we know.

The Yakima lab told us the Oriental Fruit Moth pheromone will attract Lesser Apple Worm if certain components of the pheromone are stronger than others. LAW has been detected in nine counties in Washington and two counties in Oregon, in the past. We do not expect this detection to be of any export or production significance, particularly, since it is so far removed from our commercial production areas, and those areas were trapped for OFM back in 1993.

**MEDITERRANEAN FRUIT FLY (MFF)** (*Ceratitis capitata*) - This survey is carried out as part of an export program for the shipment of apples to the Peoples Republic of China. Two commercial orchards registered for the program and 48 traps were placed in four counties where that producer has eligible orchards. The traps were placed at a rate of one per 250 acres of orchard and perimeter trapping at a rate of one per square kilometer of existing host material around each orchard. Three traps were placed with the packing facility and all traps were serviced monthly. Field traps were kept in place from April through harvest and the facility traps were maintained year-round. No fruit flies were detected.

**ORIENTAL FRUIT MOTH (OFM)** (*Grapholita molesta*) - Twenty-five traps were placed at 16 sites in two nurseries and surrounding areas in Boundary County, northern Idaho as part of the virus-indexing program for the exportation of Prunus and Malus nursery stock to Canada. No moths were caught.

**PLUM FRUIT MOTH (PFM)** (*Cydia funebrana*) - This survey was carried out under a USDA exotic pest survey grant; 118 traps were placed in all of the commercial production areas for the host plants (Apple, Peach and Pear). This included Ada, Owyhee, Canyon, Payette, Gem and Washington counties. No positive detections were made. This pest is not known to occur in the United States.

**SUMMER FRUIT TORTRIX MOTH (SFTM)** (*Adoxophyes orana*) - This survey was carried out under a USDA exotic pest survey grant; 118 traps were placed in all of the commercial production areas for the host plants (Apple, Peach and Pear). This included Ada, Owyhee, Canyon, Payette, Gem and Washington counties. No positive detections were made. This pest is not known to occur in the United States.

#### DISEASES FOUND DURING 1996 FIELD INSPECTIONS FOR EXPORT CERTIFICATION

- **Alfalfa** -- *Alternaria* spp. was observed in three seed fields and *Stemphylium* leaf spot was found in two fields. Alfalfa mosaic virus was found in six fields. Spring black stem (*Phoma* spp.) was found in 13 fields, and *Cladosporium* leaf and stem spot was observed in two fields. All of the above finds were in the Treasure Valley.
- **Corn** -- High Plains Disease was confirmed in forty-one corn seed fields in the Treasure Valley. Five fields were found to have Wheat streak mosaic virus. *Alternaria* leaf spot was found in seven fields. Three fields were confirmed with *Fusarium* infection serious enough to be detected in a visual examination of the field.
- **Peas** -- Bacterial blight (*Pseudomonas pisi*) was found in one field in the Magic Valley. Three fields were found positive for *Fusarium* spp. , and one field was found positive for Downey mildew in the Treasure Valley.
- **Onion** -- One field was confirmed to have *Phoma* spp. and three fields were found to have *Botrytis* spp. in the Treasure Valley. Two additional onion seed fields were rejected for presence of disease in the Magic Valley. Diseases found in those two fields include White mold (*Sclerotinia sclerotiorum*), Downy Mildew (*Pernospora destructor*), Scape Blight (*Botrytis* spp.), and Purple Blotch (*Alternaria porri*).
- **Mint** -- *Verticillium* wilt (*Verticillium dahliae*) was confirmed in two fields in the Magic Valley and two fields in the Treasure Valley.
- **Carrot** -- Six seed fields were found to have *Sclerotinia sclerotiorum*. One carrot field was confirmed to have aster yellows.
- **Bean** -- No fields in the Treasure or Magic Valleys were found positive for any of the Bacterial Blights cited in Idaho's Rules Concerning Bacterial Diseases of Beans. Three fields in the Treasure Valley were confirmed positive for Bean common mosaic virus.
- **Garlic** -- One private backyard garden was confirmed positive for onion white rot (*Sclerotium cepivorum*). The garlic was removed and destroyed under the supervision of the Idaho Department of Agriculture. No other *Allium* spp. were observed in the vicinity of the garden effected.
- Number of Fields and Acreage's Submitted for Inspections Under the Idaho Rules for Phytosanitary and Post-Entry Certification and Bacterial Diseases of Beans for the 1996 Field Season

| Species       | Fields | Submitted Acres | Inspected Acres |
|---------------|--------|-----------------|-----------------|
| Alfalfa       | 278    | 4,922.72        | 4,877.72        |
| Barley        | 9      | 199.00          | 199.00          |
| Beans, Dry    | 272    | 5,364.60        | 12,594.30       |
| Beans, Garden | 1448   | 24,397.55       | 53,029.80       |
| Cabbage       | 1      | 4.00            | 4.00            |
| Carrot        | 74     | 435.76          | 435.76          |
| Chive         | 5      | 46.00           | 46.00           |
| Corn          | 729    | 6,958.52        | 13,457.24       |
| Garlic        | 1      | 0.10            | 0.10            |
| Leek          | 5      | 12.50           | 12.50           |
| Lettuce       | 57     | 347.70          | 338.20          |
| Mint          | 48     | 706.00          | 416.80          |

|               |              |                  |                   |
|---------------|--------------|------------------|-------------------|
| Onion         | 84           | 344.02           | 339.02            |
| Peas          | 451          | 12,729.35        | 19,374.45         |
| Pepper, Bell  | 4            | 3.20             | 3.20              |
| Potato        | 1            | 25.00            | 25.00             |
| Pumpkin       | 2            | 0.30             | 0.30              |
| Radish        | 20           | 155.50           | 155.50            |
| Red Clover    | 4            | 95.00            | 95.00             |
| Squash        | 10           | 12.95            | 12.95             |
| <b>TOTALS</b> | <b>3,503</b> | <b>56,759.77</b> | <b>105,416.84</b> |

***NURSERY INSPECTIONS FOR COMPLIANCE WITH THE IDAHO NURSERY LAW TITLE 22,  
CHAPTER 23 IDAHO CODE***

In 1996 there were 1200 licensed nurseries and 802 of those were inspected for compliance with the law and the presence of plant pests and noxious weeds. In addition, specific checks were made for compliance with various state laws or quarantines or pests of particular concern The results are listed below.

| <b>Quarantine / Pest(s)</b> | <b>No. Inspections</b> | <b>Incidents</b> | <b>Stop Sales</b> | <b>Corrective Action</b> |
|-----------------------------|------------------------|------------------|-------------------|--------------------------|
| Certified Seed Potatoes     | 126                    | 5                | 4                 | 1                        |
| Japanese Beetle Quarantine  | 296                    |                  |                   |                          |
| Pine Shoot beetle           | 250                    |                  |                   |                          |
| Noxious Weeds               | 413                    | 10               | 1                 | 9                        |
| Aphids                      | 522                    | 56               |                   | 24                       |
| Onion White Rot Quarantine  | 175                    | 14               | 14                |                          |
| European Pine Shoot Moth    | 251                    | 3                |                   | 3                        |
| Grape Quarantine            | 79                     |                  |                   |                          |
| Gypsy Moth                  | 273                    |                  |                   |                          |
| Idaho Seed Law              | 296                    |                  |                   |                          |
| European Corn Borer         | 282                    | 4                | 4                 |                          |
| Mint Quarantine             | 124                    |                  |                   |                          |
| Peach Tree Quarantine       | 97                     |                  |                   |                          |
| Red Imported Fire Ant       | 276                    |                  |                   |                          |
| Nematodes                   | 1                      |                  |                   |                          |
| General Pests               | 1200                   | 62               |                   | 35                       |
| <b>Totals</b>               | <b>4661</b>            | <b>154</b>       | <b>23</b>         | <b>72</b>                |

*In addition, special surveys were made for late blight on tomato seedlings offered for sale and none were found to be infected.*

Prepared by: Michael E. Cooper, Chief, Bureau of Feeds and Plant Services